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CHANGING ROLE OF WOMEN: A STUDY OF SMALL MANUFACTURING ENTERPRISES IN INDIA

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Abstract

Women's position in the labour market is quite vulnerable and they face widespread discrimination, especially in the informal sector. This position is changing, both quantitatively and qualitatively, and there is a marked trend towards feminisation of workforce. This paper focuses on this changing position of women in the informal manufacturing sector in India over the 1989-2000 period. The share of women in total employment is declining in the sectors traditionally labelled for women and increasing in the non-traditional sectors. Distribution of women employment is becoming more evenly spread across both activity groups and regions. Widespread casualisation emerges to be a prominent phenomenon. Poverty, literacy and per capita income are identified as important determinants of incidence of women employment. In recent years women's participation seems to be less distress driven. Regulations regarding minimum wage, mass literacy campaign along with vocational and on the job training are some of the policy suggestions.

Key Words: Changing Role, Employment, India, Informal Sector, Regional Pattern, Unorganised Manufacturing, Women.

CHANGING ROLE OF WOMEN:

A STUDY OF SMALL MANUFACTURING ENTERPRISES IN INDIA

I. INTRODUCTION

The role of women has been changing substantially over the last decade and half, both inside and outside homes. In addition to their role within households, they are now having a larger role in the outside world also, especially in the labour market. It has often been argued that women face a segmented labour market with sector specific jobs and often gender specific wages assigned to them. However, the world is witnessing a significant change in this traditional thinking regarding ability of women to work only in a few specific sectors. Gone are the days when women were employed mostly as low paid casual workers in agricultural and construction activities. Moreover, it is often argued that globalisation is leading to feminisation of labour force through putting out system or subcontracting as employing women under informal conditions involve lower labour cost (Sethuraman, 1998). It is also believed that such feminisation is the result of growing flexibility in the labour market whereby women find themselves in traditionally male dominated jobs. In addition, certain jobs may have changed their characteristics and acquired those associated traditionally with women's work - informal contracts, lower remuneration, less security, lower skills etc. (Unni and Rani, 2000). Others have argued that these trends are partly due to improvements in the measurements of women's activities or extension of the definition of economic activities, and partly due to significant entry of women into the labour market at the face of global structural adjustment whereby it becomes necessary for them to undertake market activities to maintain their families (Charmes, 1999). In spite of all these, women still find themselves at the receiving end in the labour market. Moreover, women are found to depend on informal sector more heavily than men, and as a result, their share in this sector is higher than their share in total labour force (Sethuraman, 1998). Even within the informal sector most of the women are own account workers or home-based workers. However, this traditional setting is changing, albeit slowly, and the share of women in wage employment is increasing along with intrusion of more and more women into hitherto male bastions. The present paper attempts to focus on this changing position of women in the informal sector in India over the decade 1989-2000 by exploring different related issues.

Apart from agriculture, women in India are mostly employed in manufacturing activities (NSSO, 2001). In addition, the process of '*feminisation*' has been fastest in the manufacturing

sector. A substantial part of this is in the form of employment in micro and small enterprises (MSEs), especially in the household enterprises. The present paper concentrates on this segment of manufacturing activities to understand the changing role of women workers. We provide an overview of magnitude and growth of women workers in MSEs during the study period against the backdrop of employment scenario in the country in general and the manufacturing sector in particular in the next section. Subsequent sections are devoted to analysing the relative importance of women worker in MSEs; their spread across different industrial activity groups; the regional pattern; and the association between women participation in the MSEs with a few socio-economic correlates. The last section summarises the findings and provide some policy suggestions.

Comprehensive information about MSEs are provided by periodical surveys on Unorganised Manufacturing Sector by National Sample Survey Organisation (NSSO). These surveys differentiate between the household worker based units or OAMEs and the small units with hired labour or NDMEs.¹ We use the data from the 45th and 56th Round surveys of NSSO pertaining to the years 1989-90 and 2000-01 respectively. The analysis is carried on at disaggregated level of 2 digit National Industrialisation Classification (NIC), for OAMEs and NDMEs, separately for Rural and Urban areas, for 15 major states of India.

II. OVERVIEW

A broad overview of the employment scenario suggests a decline in Usual Principal and Subsidiary Status (UPSS) Employment Rate during most part of the 1990s, especially the later half of it, caused by employment growth lagging behind that of Work Participation (WP). Only exception to this trend has been the urban female segment where both UPSS and Current Daily Status (CDS) employment rates are rising. However, the rise in UPSS employment rate is due to a decrease in UPSS employment accompanied by a more than proportionate fall in WP, indicating that urban women are gradually withdrawing themselves from the labour market (Mukherjee, 2003). Though the CDS employment has increased more than proportionately relative to the rise in WP, the virtue of this phenomenon has also been questioned. It is argued that because women are available for casual work at wages lower than their male counterpart, the balance is being tilted in their favour (Kundu, 1999). A general trend towards casualisation is also evident during this period.

The 90s have also witnessed a decline in the share of manufacturing sector in total non-agricultural employment in the rural areas and a marginal increase in this share in the urban areas. Absolute levels of employment in this sector have also declined in the rural areas and

marginally increased in the urban areas. Within the manufacturing sector, the share of the unorganised sector (OAMES, NDMES and the DMEs) declined from 83.3 per cent in 1989-90 to 78.8 per cent in 2000-01.² Within this, the share of the MSEs (OAMES and NDMES) have declined, mainly due to a fall in the share of the OAMES which outweighs a marginal increase in the share of the NDMES. Absolute employment level has expanded in both OAMES and NDMES during 1989-2000, though the rural segment has witnessed a decline in employment in both these enterprise types.

This general pattern is true for female workers in MSEs also. There is a marginal decline in female employment in both OAMES and NDMES in the rural areas along with a sizeable expansion of their numbers in the urban segment, leading to a rise in total female employment (Table 1). While numbers of both Household female workers (HHFW) and Hired female workers (HRFW) have increased in the urban segment, hired female workers have declined in the rural NDMES. If we differentiate between Full-time and Part-time workers, it is observed that numbers of full time female workers (FTFW) have declined in rural OAMES, while that of part time female workers (PTFW) have declined in rural NDMES. Their numbers have increased in the other segments. However, at the aggregate level, there has been a decline in number of FTFW and a rise in PTFW.

The general rise in female employment in MSEs is not evident all throughout. While it has increased substantially in Delhi, Punjab and Himachal Pradesh, it has declined in Haryana, Rajasthan, Kerala, West Bengal, Uttar Pradesh, and Andhra Pradesh. A similar regional pattern is observed for HHFW also. FTFW has declined in the same states along with in Maharashtra and Orissa, while PTFW have declined only in Rajasthan.

Such disparities are evident across industry groups also. There has been a substantial decline in female employment in Tobacco & Beverage sector, as also in the Leather Product, Textiles, Transport Equipment, Wood Product, and Non-metallic Mineral Product sectors. This is caused mainly due to decline in FTFW in these sectors, while PTFW have declined only in Tobacco & Beverages, Leather Product, and Textiles.

III. ROLE OF WOMEN WITHIN MSEs - STUDY OF ENTERPRISE TYPES

The role of women vis-à-vis that of the males within the MSEs has been changing considerably over the study period. Those trends are disparate across the four types of enterprises that we are reviewing. We may outline those trends along following lines.

1. OAMEs

The rural OAME sector is shrinking over the period 1989-2000, whereby both Male and Female employment are declining. But female employment is declining at a faster rate compared to the males; as a result of which share of women in total employment is declining. However, while HHFW and FTFW are declining, PTFW are increasing. It may thus be argued that, for rural segment, men folk not getting job outside are engaging themselves in the household units, thereby displacing the women workers therein. As a result, the share of all women, and those of HHFW and FTFW in total workers have been declining (Table 2). Women earlier engaged as fulltime workers are now transformed to part-time household workers assisting the men folks leading to a rise in the share of PTFW in total workers. The share of women among household workers has declined only marginally, that among fulltime workers has decreased, while their share among part-time workers has substantially increased (Table 3).

In case of Urban OAMEs, a different picture emerges. Whereas share of women in total workers has increased marginally, there is a marked trend towards casualisation. It is observed that growth rate of FTFW are being surpassed by growth in PTFW. Thus, on one hand share of FTFW is decreasing, whereas on the other hand there is a drastic rise in the share of PTFW. However, among the fulltime workers, share of women is increasing marginally, perhaps because growth rate of male fulltime workers is lower than that of the females. The share of HHFW in total workers is also increasing.

2. NDMEs

In case of rural NDMEs, the growth rate of employment has been negative over the study period. While the growth rate of female workers is also negative, their share in total employment has increased. Moreover, while number of HRFW has decreased, that of HHFW has increased. On the other hand, while number of FTFW has increased, that of PTFW has decreased. It is thus clear that a part of part time hired workers is being replaced by full time household workers. Actually, in face of contracting employment opportunities in the rural areas, female family members are now available as full time household workers, and are replacing hired part-time workers. This is supported by the fact that the share of women within hired workers is decreasing while that among household workers is increasing. As a result, though the shares of HHFW and FTFW in total worker are increasing, those of HRFW and PTFW are decreasing.

Overall employment has been increasing in the urban NDMEs over the study period. This has been accompanied by a rise in share of all types of female workers, indicating increasing active participation of women.

Thus, the share of women in total workers is increasing in almost all the segments of MSEs, except rural OAMEs where the share is decreasing marginally. There are clear signs of replacement of fulltime household workers by part-time household workers in the rural OAMEs. For the urban OAMEs also, the share of FTFW is decreasing while that of PTFW is increasing drastically. For the urban NDMEs, though both FTFW and PTFW are increasing, growth rate of PTFW are twice as high as of FTFW. Thus, the most prominent feature that emerges is the trend towards casualisation. Only exception has been the rural NDMEs where part-time hired females are being replaced by full-time household females because of lack of employment opportunities elsewhere. This process of casualisation is supported by the fact that the share of PTFW has increased drastically over the study period thereby tilting the balance towards casual female workers. Also, while share of household female workers in total workers have increased everywhere except only in rural OAMEs, the share of hired female workers has increased in urban NDMEs only. At the aggregate level we find a marginal rise in the share of HRFW among all workers, as also of hired women among all women workers. This indicates that even in face of overwhelming majority of women as household workers and increasing casualisation trends, importance of hired women are increasing, more significantly in the most modern segment of the MSEs. This underlines the changing role of women in the labour market, especially in the post liberalisation era.

IV. ROLE OF WOMEN WITHIN MSEs - STUDY OF ACTIVITY GROUPS

The incidence of women employment varies not only across enterprise types but also across industrial activity groups even within the same enterprise types. We would now review the trends shown across 2-digit NIC activity groups. The activities can be classified into 3 categories. Those where traditionally women workers have been an overwhelming majority (e.g. Food, Tobacco and Beverages, Textiles and Textile products) may be termed the Traditional sector. On the other extreme, those where women workers are scarce (e.g. Leather products, Basic Metal, Metal products, and Equipment sectors) may be identified as the Non-traditional sector. In the middle are those sectors where the share of women in total workers lies between 30 to 50 per cent, which may be called the Intermediate sectors. It is evident that the role of women workers and trends thereof are different in these sectors.

There is a general trend of expansion of women's participation in the so-called Non-traditional sectors, especially in the Machinery & Equipment sectors. For the other Non-traditional sectors like Leather products, Basic Metal and Metal products, women's role is observed to be expanding in one segment while contracting in the other. Food product is the only Traditional sector where female workers are increasing both in absolute numbers and relative to the males. For the Textile products, though number of female workers has increased, their share has declined. For other traditional sectors like Tobacco & Beverages and Textiles, there has occurred a decline in both number of female workers and their share in total employment. For most of the Intermediate sectors like Wood product, Non-metallic Mineral product, and Rubber & Plastic products, there have been disparate trends, with expansionary effect in one segment and contractionary effect in another. For all the segments however, we find a trend towards more equality in share of women in total workers across the industry groups as evident from decreasing magnitude of Coefficient of Variation (CV) thereof.

This overall trend of declining share of women in traditional sectors and a rise in their share in the Non-traditional sectors, along with convergence in their incidence across industrial activities is no doubt an indication of the changing role of women in the MSEs in recent times.

V. ROLE OF WOMEN WITHIN MSEs – REGIONAL PATTERN

The trends in incidence of women employment and the changing pattern of it as evident in the national level are not uniform throughout. Significant regional disparity is observed in such developments as well. We would now review the regional trends using state level data.

For the rural OAMEs, substantially high share of female workers among all workers in 1989-90 is observed in the southern states of Karnataka, Kerala, Tamil Nadu, and Andhra Pradesh, as also in the eastern states of West Bengal and Orissa. This share is low in the northern and western states of Himachal Pradesh, Punjab, Haryana, Gujarat, and in the eastern state of Bihar (Table 6). During 2000-01 also, similar trends are observed with the same states occupying the top and bottom positions. The only exception is Punjab, where the share of female workers has increased drastically from 22 per cent to 52 per cent. Absolute level of women employment have decreased in most of the states with initial high share of female workers and increased in state with low share (Table 7). As a result, the shares have become more evenly distributed across the states as shown by declining magnitude of CV. The urban OAMEs follow similar trend as shown by the rural OAMEs

For the rural NDMEs in 1989-90, highest share of female workers was observed in Tamil Nadu, followed by Andhra Pradesh, Orissa, West Bengal, and Kerala. On the other hand, shares of women are low in Gujarat, Himachal Pradesh, Punjab, and Uttar Pradesh. In 2000-01 however, share of women declined substantially in Orissa and it came to the bottom group along with Bihar, Haryana, and Rajasthan. Except Orissa, growth rate of female workers is high in most of the states where the share had been high. While highest growth is observed in Punjab, highest decline is observed in Rajasthan, with female employment also declining in Bihar, Maharashtra and Haryana. Regional disparity is also decreasing over time.

Highest share of female workers are observed in Tamil Nadu, Kerala, West Bengal and Karnataka, and lowest shares in Delhi, Gujarat, Haryana, Himachal Pradesh, and Punjab both for 1989-90 and 2000-01. Female employment has been increasing in almost all the states except Bihar and Orissa. The shares have also become more evenly distributed across the states as shown by declining magnitude of CV.

Thus, in an overall sense, the southern states and the eastern states of West Bengal and Orissa occupy the topmost positions as far as share of women in total employment in MSEs is concerned while bottom positions are occupied by the northern and western states of Haryana, Himachal Pradesh, Punjab, and Delhi. Though the role of women is much more prominent in the OAMEs compared to the NDMEs, the share of women is increasing in both the segments in almost all the states. Regional disparity in the prominence of women is observed to be decreasing over the study period. However, the variation is still too high to be ignored.

VI. FACTORS AFFECTING WOMEN PARTICIPATION IN MSEs

A clear regional pattern has emerged from the previous section of the study. Let us now explore some of the possible factors responsible for the wide regional variation regarding the role of women in the MSEs.

1. Poverty

It is generally argued that poverty pushes even female household members into the labour market – either as family labourers or as wageworkers. It is observed that the association between share of all women in total workers and incidence of poverty in the state is significantly positive for OAMEs and positive but insignificant for NDMEs (Table 8). Positive association is also observed between incidence of poverty and share of PTFW in total workers, and the association is significant for rural OAMEs and urban NDMEs. For the FTFW, the association is significantly positive in case of urban OAMEs, though positive

elsewhere also. Thus, higher incidence of poverty is leading to increased share of women in the MSEs, especially in the OAMEs, though the nature of employment are different for rural and urban areas. Moreover, the strong association with share of PTFW in total workers, even in case of the modern segment of urban NDMEs, indicates that the incidence of poverty is universally linked with the phenomenon of casualisation of workforce.

Such strong positive association is however weakening over time and in 2000-01 significant positive association between incidence of poverty and share of women in total workers is observed only for the urban OAMEs. Thus it may be inferred that women's participation in the MSEs are becoming less poverty driven and more spontaneous in recent years. The association with PTFW and hence with casualisation trends is still strong and significant in the urban OAMEs.

2. Female Literacy

While poverty is a supply side phenomenon, literacy acts a demand-enhancing factor, empowering women to take up various types of jobs. The association is found to be significantly positive for the HHFW and FTFW for the urban NDMEs in 1989-90. For the other segments also the associations are positive, though not significant. Thus, literacy is found to facilitate women in participating more actively in the labour market, especially as hired labour in the most modern segment. However, over time, this association is becoming stronger and significant association is observed in 2000-01 not only in the urban but also in the rural NDMEs. Moreover, the magnitude of the association has increased for the OAMEs also. Thus, female literacy is becoming a more and more important factor as far as acceptance of female workers is concerned, especially as hired workers. This has serious policy implications.

3. Work Participation Rate

The association between Female Work Participation Rate (FWPR) and share of female workers is observed to be significantly positive in the urban areas for both the periods. For the rural areas the association is insignificant though positive. This indicates that higher share of women in the MSEs is closely linked to higher availability of women in the labour market, especially in the urban areas.

4. Per Capita Income

It may well happen that the general economic condition of a region has a bearing on female participation in labour market. This association has been explored using the state's Per Capita Net State Domestic Product (PCNSDP) as a causal variable. It is observed that the

association is significantly negative for the OAMEs in 1989-90. Association is negative for the other segments also, though insignificant. This indicates that women's participation is higher in regions with low per capita income. The low-income syndrome forces women from the household to take up jobs to supplement male earnings, and especially so in the household units. However, the strength of this association is weakening over time. In 2000-01, the association is no more significant for the OAMEs, and is observed to have decreased in magnitude for the NDMEs also. This implies that though the distress factor is still at work, the strength of this driving force has weakened substantially. Perhaps in recent years, a part of women's participation is not an induced phenomenon anymore but a spontaneous and demand determined one even for the smaller units. This has great socio-economic implication, as this is indicative of a revolutionary change in the attitude towards female employment in the MSEs.

VII. CONCLUSION

1. Summary

The most prominent feature that emerges from the study is the changing role of women in the MSEs in the post-reform period. There is now more active participation of female workers even in the Non-traditional sectors, and a more even distribution of them both over different industrial activity groups and across regions. However, the absolute numbers of female workers is increasing in the urban areas but decreasing in the rural areas. The share of hired workers within female workers has also increased marginally. A major development has been the drastic increase in the share of part-time workers within female workers at the cost of fulltime female workers. There is thus a prominent trend towards change in the status of female workers from fulltime to part-time which is a reflection of outright casualisation. This has serious policy implication in the sense that it brings out the vulnerability of women in the labour market.

Industrial activity level study reveals that the share of women is increasing in the so called Non-traditional sectors like Machinery and Equipment etc., and decreasing in the traditional sectors like Tobacco & Beverages, Textiles, etc., thereby making the distribution more even. Regional study shows that the southern states top the list regarding share of women in total employment, while the shares are low in the northern and western states. Here also, the regional disparity is decreasing over time.

It is also observed that factors like incidence of poverty, female literacy levels, female work participation rate, and PCNSDP of the states are important factors affecting the magnitude and share of women employment in the MSEs.

2. Policy Implications

The foremost policy measure should address the issue of casualisation of female workers in the MSEs. Though female workers are increasing over time and becoming more evenly spread both across industrial activity groups and regions, the virtue of such increased women work participation is questionable as long as the increase is in the form of casual jobs. It may be argued that this is a result of availability of female workers at a wage rate lower than their male counterparts and reflects their vulnerable position in the labour market. Regulations regarding minimum wages and its strict implementation may be a step towards resisting such increasing casualisation. Since casualisation is observed to be linked with incidence of poverty, measures to alleviate poverty can also put a check to this process. On the other hand, as literacy seems to increase the acceptability of women in the labour market, especially as hired workers, 'literacy mission' may also be a policy tool. In this context, linking literacy programmes with vocational training and on-the-job training for women can also be helpful in consolidating their position in the labour market. Though the attitude towards women has been changing and their participation is becoming less sector-specific and more universal over time, it is still very much an outcome of distress. Until and unless our outlook in this issue changes, women will not be able to contribute substantially in the process of 'nation building'.

Notes

¹ OAME - Own Account Manufacturing Enterprise - manufacturing enterprise operating with no hired worker employed on a fairly regular basis; NDME - Non-Directory Manufacturing Establishments - units employing less than 6 workers including household workers.

² The sixteen major states studied are - Andhra Pradesh, Bihar, Delhi, Gujarat, Haryana, Himachal Pradesh, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Orissa, Punjab, Rajasthan, Tamil Nadu, Uttar Pradesh, and West Bengal. Together, they account for 96 per cent of informal manufacturing sector employment in India.

³ The third component of the Informal Manufacturing Sector is the comparatively larger firms – the DMEs or Directory Manufacturing Establishments - units employing 6 or more workers with at least 1 hired worker but not registered under the Factory Act.

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Table – 1
Women Employment in Different Segments of MSEs in India (in Lakhs)

Segment	Full Time		Part Time		Hired		Household		Total	
	1989	2000	1989	2000	1989	2000	1989	2000	1989	2000
Rural OAME	72.2	55.4	12.9	26.7	0.2	0.4	84.9	81.8	85.1	82.1
Urban OAME	15.7	17.5	2.2	7.5	0.1	0.1	17.8	25.0	17.9	25.1
Total OAME	87.9	73.0	15.1	34.2	0.3	0.5	102.7	106.7	103.0	107.2
Rural NDME	1.8	1.9	1.0	0.6	1.6	1.1	1.2	1.4	2.8	2.6
Urban NDME	1.4	2.1	0.2	0.4	0.7	1.2	0.9	1.3	1.6	2.5
Total NDME	3.2	4.0	1.2	1.1	2.3	2.4	2.1	2.7	4.4	5.1
Rural MSEs	74.1	57.4	13.9	27.3	1.8	1.5	86.1	83.2	87.9	84.7
Urban MSEs	17.1	19.6	2.4	8.0	0.7	1.3	18.7	26.2	19.5	27.6
Total MSEs	91.1	77.0	16.2	35.3	2.6	2.8	104.8	109.5	107.4	112.3

Source: Author's Calculation Based on NSSO (1995, 2002, 2002a)

Table 2
Percentage Share of Women in Total Workers – All India

Category of Employment	1989-90					2000-01				
	OAME		NDME		Total MSEs	OAME		NDME		Total MSEs
	Rural	Urban	Rural	Urban		Rural	Urban	Rural	Urban	
Full Time	37.0	31.4	8.4	4.8	30.8	29.1	29.7	10.1	5.8	25.2
Part Time	6.6	4.4	4.5	0.6	5.5	14.0	12.8	3.2	1.2	11.6
Hired	0.1	0.1	7.3	2.3	0.9	0.2	0.2	5.9	3.4	0.9
Household	43.5	35.7	5.6	3.1	35.4	42.9	42.3	7.5	3.5	35.8
All	43.6	35.8	12.9	5.4	36.2	43.1	42.5	13.3	6.9	36.8

Source: Same as Table 1

Table 3
Percentage Share of Women Workers among Different Categories – All India

Share of Women in	1989-90					2000-01				
	OAME		NDME		Total MSEs	OAME		NDME		Total MSEs
	Rural	Urban	Rural	Urban		Rural	Urban	Rural	Urban	
Full Time Workers	42.6	34.8	9.1	4.8	34.6	37.5	35.7	11.0	6.0	30.9
Part Time Workers	50.1	52.9	54.7	20.9	50.0	62.4	76.5	39.9	26.6	63.2
Hired Workers	23.5	10.4	13.7	3.9	8.3	34.2	16.1	11.2	5.8	8.5
Household Workers	43.7	36.6	11.9	7.4	39.5	43.1	42.8	15.7	8.5	40.2
All Workers	43.6	35.8	12.9	5.4	36.2	43.1	42.5	13.3	6.9	36.8

Source: Same as Table 1

Table 4
Percentage Share of Women in Total Workers by Activity Groups – All India

Industry	1989-90					2000-01				
	OAME		NDME		Total MSEs	OAME		NDME		Total MSEs
	Rural	Urban	Rural	Urban		Rural	Urban	Rural	Urban	
Food Products	33.6	31.0	6.1	7.2	27.4	46.9	52.7	12.9	11.1	43.5
Tobacco & Beverage	79.9	70.1	18.9	11.6	76.0	44.8	39.5	9.0	14.7	41.5
Textiles	56.3	57.0	28.2	15.3	50.6	54.3	53.5	26.9	18.3	48.8
Textile Products	53.1	47.7	18.8	10.0	44.5	46.3	47.2	14.2	7.8	38.9
Wood Products	40.1	29.8	2.0	1.7	36.4	36.3	20.5	6.0	1.9	31.3
Paper Products	41.9	47.3	13.2	3.8	22.5	42.4	39.3	16.7	5.6	22.4
Leather Products	13.9	6.7	7.7	6.1	11.8	9.3	18.7	5.0	4.4	11.0
Basic Chemicals	52.3	74.7	8.9	10.1	53.9	88.8	86.1	24.3	13.6	77.8
Rubber & Plastic	59.5	41.2	16.8	5.7	24.4	51.8	34.7	5.5	7.5	22.1
Non-metallic Min	40.7	9.6	55.3	13.0	38.2	40.1	43.1	18.7	14.6	37.9
Basic Metals	10.2	16.5	18.2	2.9	8.9	14.5	5.2	5.4	2.1	6.4
Metal Prod	12.3	10.4	3.3	1.1	7.9	15.4	8.7	2.9	2.0	8.7
Elec & Non-elec Equip	3.6	6.9	0.9	3.4	3.7	9.2	10.6	4.7	3.0	6.3
Transport Equipment	0.7	23.6	0.8	2.8	5.4	12.3	3.3	1.6	2.0	3.3
Misc. Manufacturing	41.7	28.2	7.2	4.4	31.0	42.6	29.9	18.9	4.3	28.1
All Industry	43.6	35.8	12.9	5.4	36.2	43.1	42.5	13.3	6.9	36.8
Coeff of Var (%)	66.4	70.6	107.5	73.5	73.1	56.7	67.0	77.1	71.3	69.9

Source: Same as Table 1

Table 5
Growth in Total Female Workers by Activity Groups – All India

Industry	Annual Compound Growth Rate during 1989-2000				
	OAME		NDME		Total MSEs
	Rural	Urban	Rural	Urban	
Food Products	9.9	15.1	5.8	7.3	10.6
Tobacco & Beverage	-22.5	-24.4	-19.3	-4.9	-22.7
Textiles	-4.2	-2.9	-0.8	-2.8	-3.7
Textile Products	7.6	14.7	0.6	15.9	9.1
Wood Products	-2.6	-3.2	12.4	5.1	-2.5
Paper Products	4.7	0.4	7.9	5.3	2.2
Leather Products	-13.6	13.1	-3.7	2.0	-4.9
Basic Chemicals	1.2	2.9	8.2	0.8	2.1
Rubber & Plastic	7.9	-1.5	-2.8	5.9	2.8
Non-metallic Min	-1.4	17.8	-13	6.5	-1.0
Basic Metals	17.2	-5.0	-9.9	2.8	3.7
Metal Prod	5.6	2.5	1.5	12.6	5.2
Elec & Non-elec Equip	20.4	15.3	27.5	4.3	13.5
Transport Equip	28.8	-16.9	0.3	4.5	-2.8
Misc. Manufacturing	-2.8	6.2	7.5	5.9	0.4
All Industry	-0.4	3.4	-0.8	4.7	0.4

Source: Same as Table 1

Table 6
Percentage Share of Women in Total Workers by States – All Industry

States	1989-90					2000-01				
	OAME		NDME		Total MSEs	OAME		NDME		Total MSEs
	Rural	Urban	Rural	Urban		Rural	Urban	Rural	Urban	
Andhra Pr	54.4	46.3	11.2	7.6	47.5	48.3	46.3	15.9	10.5	43.1
Bihar	20.2	17.3	2.5	1.8	17.5	31.2	26.8	2.9	1.5	28.5
Delhi	0.0	2.7	0.0	0.8	1.2	10.3	14.6	0.0	3.0	5.3
Gujarat	23.6	15.2	4.1	3.0	13.1	26.8	25.1	10.6	3.7	19.0
Haryana	25.3	22.0	2.2	1.0	18.8	17.6	22.7	0.7	4.1	14.2
Himachal Pr	4.8	12.4	1.3	3.7	4.4	28.1	12.9	10.4	7.7	24.0
Karnataka	62.4	51.8	4.6	7.5	52.2	61.5	51.0	7.7	6.9	48.6
Kerala	61.9	61.1	16.5	19.0	50.3	62.4	50.9	34.2	19.7	49.2
Madhya Pr	30.4	26.9	7.2	3.6	27.4	35.0	46.1	7.4	6.4	34.5
Maharashtra	35.9	33.2	7.3	5.1	26.6	28.9	40.0	9.3	7.1	26.1
Orissa	51.7	38.3	8.5	3.8	49.3	46.4	38.7	4.0	5.4	44.5
Punjab	22.0	13.5	0.9	1.3	11.9	52.3	30.2	9.8	2.3	29.8
Rajasthan	31.4	46.0	63.8	2.9	36.0	32.7	42.1	4.7	3.1	31.3
Tamilnadu	54.6	48.8	25.7	13.1	44.1	62.0	55.5	22.2	11.7	47.5
Uttar Pr	38.9	28.4	2.5	2.9	32.0	35.4	37.1	4.1	4.2	30.5
W Bengal	52.2	31.6	10.4	6.1	45.4	49.1	50.1	14.1	8.9	44.2
INDIA	43.6	35.8	12.9	5.4	36.2	43.1	42.5	13.3	6.9	36.8
Coeff of Var (%)	54.3	53.8	148.8	93.0	57.7	40.5	36.3	88.1	68.6	40.1

Source: Same as Table 1

Table 7
Growth in Women Workers by States – All Industry

States	Annual Compound Growth Rate during 1989-2000				
	OAME		NDME		Total MSEs
	Rural	Urban	Rural	Urban	
Andhra Pr	-1.2	1.8	4.4	5.7	-0.5
Bihar	6.6	7.9	-5.4	-1.4	6.6
Delhi	0.0	28.2	0.0	20.8	24.6
Gujarat	1.6	6.4	-0.6	0.2	3.1
Haryana	-6.3	-0.2	-8.1	19.3	-3.3
Himachal Pr	11.4	1.5	13.0	10.0	11.1
Karnataka	-0.1	2.1	13.0	1.7	0.6
Kerala	-3.1	-5.2	10.7	1.7	-1.6
Maharashtra	-2.6	6.6	-2.5	5.6	0.7
Madhya Pr	4.9	11.2	4.4	12.0	6.4
Orissa	-1.8	-2.0	-7.4	-0.3	-1.8
Punjab	11.1	9.4	26.1	6.1	10.8
Rajasthan	-0.7	-1.0	-30.0	0.4	-2.7
Tamilnadu	1.5	1.1	-2.9	2.1	1.2
Uttar Pr	-1.9	3.6	5.7	8.0	-0.6
W Bengal	-2.4	9.0	2.4	5.4	-1.2
INDIA	-0.4	3.4	-0.8	4.7	0.4

Source: Same as Table 1

Table 8
Correlation Coefficients of Causal Variables with Share of Women Workers – 1989-90

Causal Variables	Category	OAME		NDME		Total MSEs		
		Rural	Urban	Rural	Urban	Rural	Urban	Total

Incidence of Poverty	Full Time	0.45	0.65**	0.42	0.30	0.48	0.63**	0.54*
	Part Time	0.56*	0.34	0.03	0.57*	0.55*	0.44	0.55*
	Hired	0.23	0.24	0.07	0.19	0.06	0.09	0.06
	Household	0.52*	0.63**	0.45	0.45	0.56*	0.64**	0.59*
	All Women	0.36	0.63**	0.11	0.34	0.40	0.63**	0.58*
Female Literacy	Full Time	0.02	0.03	0.24	0.55*	-0.02	0.04	-0.02
	Part Time	-0.02	0.02	-0.34	0.21	-0.27	-0.05	-0.23
	Hired	-0.14	0.01	-0.27	0.65**	-0.23	0.70**	-0.07
	Household	0.02	0.03	0.09	0.33	-0.05	-0.03	-0.06
	All Women	0.24	0.03	-0.19	0.53*	0.12	0.03	-0.06
Female WPR	Full Time	0.28	0.73**	0.38	0.82**	0.27	0.74**	
	Part Time	0.08	0.43	0.26	0.52*	0.21	0.47	
	Hired	-0.09	0.29	0.30	0.75**	0.29	0.68**	
	Household	0.27	0.72**	0.38	0.77**	0.25	0.70**	
	All Women	-0.04	0.72**	0.36	0.80**	-0.01	0.73**	
PCNSDP	Full Time	-0.50	-0.58*	-0.36	-0.35	-0.49	-0.55*	-0.52*
	Part Time	-0.58*	-0.48	-0.18	-0.51*	-0.62**	-0.52*	-0.64**
	Hired	-0.27	-0.20	-0.22	-0.28	-0.24	-0.23	-0.23
	Household	-0.57*	-0.60*	-0.33	-0.43	-0.56*	-0.57*	-0.58*
	All Women	-0.35	-0.59*	-0.26	-0.37	-0.37	-0.57*	-0.59*

Note: ** Significant at 1% level; * Significant at 5% level; Coefficients with sig. level above 20% are not reported

Source: Same as Table 1

Table 9
Correlation Coefficients of Causal Variables with Share of Women Workers – 2000-01

Causal Variables	Category	OAME		NDME		Total MSEs		
		Rural	Urban	Rural	Urban	Rural	Urban	Total
Incidence of Poverty	Full Time	0.12	0.13	-0.12	-0.02	0.18	0.21	0.14
	Part Time	0.31	0.50*	0.25	0.16	0.43	0.62**	0.56*
	Hired	-0.01	0.07	-0.13	-0.02	-0.17	-0.16	-0.21
	Household	0.26	0.36	0.10	0.07	0.42	0.46	0.45
	Total	0.26	0.36	-0.03	0.02	0.38	0.43	0.41
Female Literacy	Full Time	0.18	0.09	0.57*	0.61*	0.12	0.02	0.12
	Part Time	0.06	-0.10	0.44	0.37	-0.06	-0.21	-0.12
	Hired	0.37	0.32	0.66**	0.64**	0.65**	0.73**	0.71**
	Household	0.19	0.01	0.41	0.52*	0.00	-0.17	-0.05
	Total	0.19	0.02	0.57*	0.60*	0.08	-0.07	0.04
Female WPR	Full Time	0.40	0.65**	0.37	0.89**	0.44	0.64**	
	Part Time	-0.06	0.23	0.14	0.49	0.00	0.21	
	Hired	0.11	0.70**	0.30	0.86**	0.07	0.77**	
	Household	0.33	0.65**	0.33	0.83**	0.40	0.54*	
	Total	0.33	0.66**	0.33	0.87**	0.39	0.62*	
PCNSDP	Full Time	-0.21	-0.12	-0.17	-0.12	-0.27	-0.24	-0.29
	Part Time	-0.28	-0.46	-0.19	-0.32	-0.37	-0.54*	-0.49
	Hired	-0.28	-0.32	-0.05	-0.16	-0.11	-0.05	-0.01
	Household	-0.33	-0.33	-0.33	-0.20	-0.43	-0.43	-0.51*
	Total	-0.33	-0.33	-0.19	-0.18	-0.42	-0.42	-0.50

Note: ** Significant at 1% level; * Significant at 5% level; Coefficients with sig. level above 20% are not reported

Source: Same as Table 1